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In this issue:
ENGINEERED FOODS

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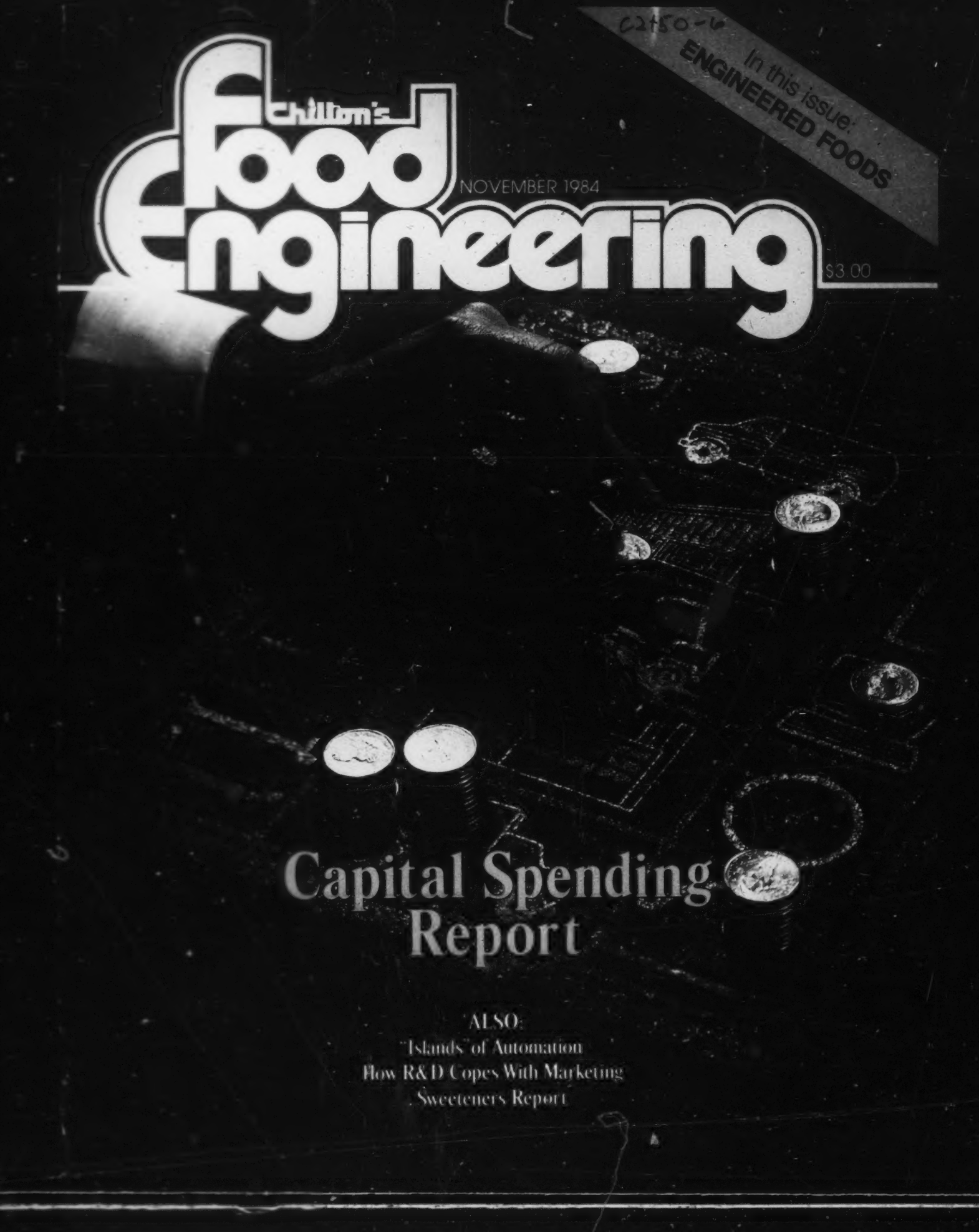

Capital Spending Report

ALSO:
"Islands" of Automation
How R&D Copes With Marketing
Sweeteners Report

Chilton's Food Engineering

ABOUT THE COVER

Capital spending can sometimes be a risky matter because, really, you're placing a bet on the future. *Food Engineering's* Capital Expenditures Report reveals what food companies are thinking about the future.

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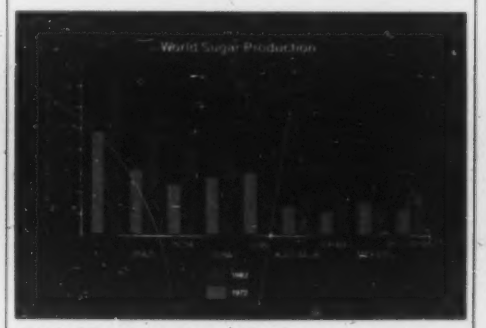

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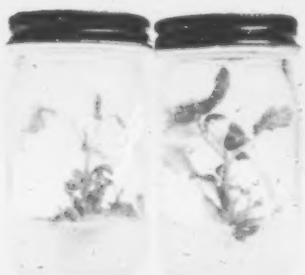

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New ideas in food and beverage plant sanitation, energy recovery abound in this special focus section of new products.
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SPENDING REPORT

CAPITAL EXPENDITURES REPORT

BILL DRENNAN, Senior Editor

Capital spending for the top 50 food firms was down slightly in '83, reflecting the national trend for all manufacturing. But, spending increased by 9% for the top ten food companies.

At first glance, 1983 appears to be a stagnant year for capital spending in the food and beverage industry. Overall spending was down 2.6% to $7.5 billion from $7.7 billion in 1982, according to the Department of Commerce. But then total manufacturing capital spending was down 1.7% to $310.9 billion from $316.4 billion in '82, so a decrease for the food industry was no surprise.

However, spending was *increased* 6.0% by the top ten spending food firms to $2.37 billion from the $2.24 billion those firms spent in 1982. Total spending for the top 50 decreased 0.2% from $4.93 billion to $4.92 billion this year. While net profits for the top 50 were $5.33 billion — only $.41 billion higher than capital spending. Spending amounts almost equal to net profits, food companies do not appear hesitant to upgrade and replace property, plants and equipment or to initiate new projects. And, spending these amounts in a year riddled with high interest rates is a sure sign that these companies are determined to maintain and improve their assets. With mergers, takeovers, and leveraged buyouts seeming to loom around every corner, it's imperative for all companies to preserve their value.

The food industry as a whole appears to be cash rich. Money seems to be plentiful for stock repurchase plans and acquisitions, as well as maintaining capital expenditure levels.

The recession is over, but the strong dollar, coupled with high interest rates is probably holding back any surges in capital spending. However, most of those companies reporting

(Continued on next page

estimates for the coming year, did project equal or higher capital expenditures for '84. If foreign currencies begin to stabilize against the dollar, as projected, the strong economy could bring a dramatic increase in capital spending.

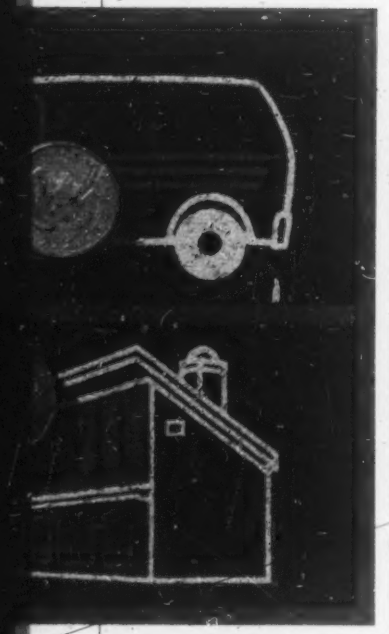
Continued concentration

Continued merger and acquisition activity continues to dramatically consolidate the food industry. This year's figures include R.J. Reynolds' purchase of Heublein, Esmark's buy-out of Norton-Simon, and Campbell Taggart's merger with Anheuser-Busch. Not reflected in the figures are some more recent events. Within the past year Beatrice bought Esmark, Nestle is taking over Carnation. Pillsbury is acquiring Van de Camp's, and R.J. Reynolds is purchasing Sunkist. The Esmark acquisition will make Beatrice the sales leader in the food industry, dispiacing General Foods. The Nestle/Carnation deal will create yet another U.S. giant. Nestle already has world revenues of $13.3 billion. The Carnation acquisition will create U.S.-based revenues of well over $5 billion. In May, 1980, *Food Engineering* asked whether the top 50 firms would control the food industry by the year 2000. If the present trend of mergers and acquisitions continues, that number could be reduced to a dozen.

The 50 firms listed here account for 66% of all food and beverage industry capital spending. They also account for 46% of total food industry sales — $132 billion out of the $287.5 billion cited by the Department of Commerce.

Capital spending is again dominated by the beverage industry. Anheuser-Busch, Coca-Cola and PepsiCo went one, two and three, spending almost a billion dollars amongst them. With CPC International (corn sweeteners) at number seven, Philip Morris (Miller Brewing) at number eight, and Coors at number eleven, the beverage industry is leading the field in expansions, and additions to property, plants and equipment. And apparently the spending is paying off. Profits at Anheuser-Busch rose almost 22% to $346.2 million and sales rose 30% to $6.2 billion. Coke's profits are up over half a billion on sales of about $6 billion. And, Pepsi's profits are up 21% to 212.1 million with sales of $5.4 billion.

The top ten spenders averaged an increase in net profits of 11.6%. Overall, the top fifty spenders averaged an increase in net profits of 4.8% (a total increase of $243.1 million). While capital spending by no means guarantees an instant profit, the long range effect of productive capital spending is undeniable. Continual improvement of property allows continual improvement in productivity. Unlike expenditures for Marketing and R&D, where results are unquestionable, but not necessarily quantifiable, results of capital spending *can* be measured. Productivity comparisons to other plants or systems or equipment *can* be made. And, the purchased property or equipment *can* be depreciated.



Anheuser-Busch spent $348.1 million on beer and beer-related operations alone in 1983.

What $4.9 billion bought

Where did all the money go this year? Number one, Anheuser-Busch spent $348.1 million for beer and beer-related operations alone with the balance being spent on food products and diversified operations. Major expenditures by the company's brewing subsidiary include the expansion of the Balswinsville, New York, and Houston, Texas breweries, as well as expenditures designed to improve productivity at all breweries. In addition, a major capital investment was made by Busch Agricultural Resources for the expansion of the Manitowoc, Wisconsin malting facility. In the food group, expenditures include Campbell Taggart's purchase of bread delivery trucks and for bakery modernization and productivity improvement programs; Busch Industrial Products expansion of the St. Louis, Missouri and Bakersfield, California yeast plants; and construction by Eagle snacks of potato and tortilla chip lines at its North Carolina plant.

Besides expanding bottling capacity, and productivity improvement programs, Coca-Cola Foods Division has invested over $20 million in additional aseptic production equipment, including a major expansion at the Division's Paw Paw, Michigan plant. The added production capability will allow the Division to expand its product line of aseptically packaged drinks to more flavors of Hi-C, as well as to other juices and juice-containing beverages.

At PepsiCo, the major portion of 1983 expenditures was devoted to increased distribution capabilities, capacity expansion and the upgrading of existing facilities. The Frito-Lay division opened its first corn storage facility in the Midwest and began construction on a new snack food production plant in Casa Grande, Arizona. Frito-Lay also installed precise and versatile weighing and packaging machines at several production facilities.

General Foods' Oscar Mayer Division opened a single-product plant to produce bacon at Coshocton, Ohio. Plans have been announced to build a single-product hot dog plant in Columbia, Missouri and the purchase of a plant in Sigourney, Iowa, for producing processed turkey products. The company also added Orowheat bakery and distribution facilities.

Nabisco Brands began construction of a new Corporate Technology Center in East Hanover, New Jersey, expected to be completed during 1985. The company is planning to upgrade productivity throughout their confectionery

manufacturing plants. The hot cereal plant in Minneapolis, Minnesota was modernized, as well as the Milk-Bone plant in Buffalo, New York. In Canada, Nabisco installed modern automated palletizers at the Christie Brown bakeries, and purchased computer facilities. Overseas, the company began a modernization program at their newly-acquired Huntley & Palmer group in Britain.

CPC International is on the move. Having spent over $187 million in 1983, the company is planning to invest more than $300 million annually over the next three to five years. CPC plans to take advantage of new technology available in corn wet milling and to continue major expansion of its grocery products business. CPC purchased a plant at Schaumburg, Illinois, to expand production of Thomas' English muffins.

In 1984, construction will begin on a mayonnaise and related products plant in Bayonne, New Jersey, and two other mayonnaise plants at Lerma, Mexico and Pilar, Argentina. At Duppigheim, France, CPC built a modern plant for Knorr soups, sauces and bouillons. CPC's German affiliate entered the wheat processing field with the start-up of a new plant at Zulpich, Germany. The company's largest corn wet milling facility at Mogi-Guacu, Brazil was expanded. In the coming year, production capacity at the Winston-Salem, North Carolina corn wet milling plant will be expanded by 50%. And the company's Argo, Illinois plant will be completely rebuilt at an accelerated rate over the next five years, at a cost of over $300 million.

Campbell's new facilities

Campbell Soup completed an $8 million state-of-the-art mushroom growing facility in Dublin, Georgia. Construction began on a $9 million Le Menu production line at the Sumter, South Carolina frozen food plant. The Pepperidge Farm division completed two new cookie production lines at the Willard, Ohio plant. And, began two more at the Downingtown, Pennsylvania facility. The Vlasic Foods division renovated the Imlay City, Michigan pickle plant. For 1985, the company plans to focus on new technology in containers and packaging.

Philip Morris completed the Miller brewing Trenton, Ohio brewery. The company also acquired bottling operations for the Seven-Up Company in Ottowa, Toronto and Bosfon.

Kellogg's is in the process of completing a major, advanced-technology cereal plant in London, Ontario, Canada. Similar technological renovations are taking place at manufacturing facilities in the U.S., Great Britain, Australia and Brazil. The company's newest plant in Seoul, South Korea began production

RANKING OF TOP SPENDERS

Company	1983	1982	1981	1980	1979
Anheuser-Busch	1	1	1	1	1
Coca-Cola	2	6	3	4	3
PepsiCo	3	4	7	2	2
General Foods	4	7	10	6	12
Nabisco Brands	5	5	8	17	22
R.J. Reynolds	6	17	21	18	25
CPC International	7	8	5	5	11
Campbell Soup	8	12	16	10	9
Philip Morris	9	3	4	3	4
Kellogg's	10	15	14	12	21
Adolph Coors	11	25	13	14	—
ConAgra	12	45	38	42	—
Archer-Daniels-Midland	13	11	2	7	33
H.J. Heinz	14	20	17	16	13
General Mills	15	14	19	22	10
Nestle	16	22	—	—	—
Beatrice Foods	17	9	11	8	7
Procter & Gamble	18	19	30	21	15
Carnation	19	27	23	49	20
Hershey Foods	20	18	20	28	29
Dart & Kraft	21	16	18	11	16
Borden	22	30	29	27	8
Consolidated Foods	23	13	12	9	14
Pillsbury	24	29	28	32	6
Seagram	25	23	24	26	34
Ralston Purina	26	10	9	20	5
Swift Independent	27	—	—	—	—
IT&T	28	26	26	29	28
A.E. Staley	29	2	6	19	36
The Federal Co.	30	—	46	39	43
Agway	31	—	—	—	—
McCormick	32	48	—	—	—
IC Industries	33	33	34	41	41
G. Heileman Brewing	34	49	35	37	—
General Cinema	35	36	—	—	—
Esmark	36	—	—	—	—
United Brands	37	39	25	33	31
American Brands	38	41	—	—	49
Anderson Clayton	39	37	32	41	37
Castle & Cooke	40	50	40	40	27
Gerber	41	—	42	50	17
MEI	42	35	—	—	—
Formost-McKesson	43	44	41	45	38
American Home Products	44	—	—	—	—
Universal Foods	45	—	50	—	—
Central Soya	46	40	39	—	39
Lipton	47	—	—	—	—
International Multifoods	48	46	44	46	47
Tyson Foods	49	43	43	—	—
Montfort of Colorado	50	—	—	—	—

(Continued on next page)

SPENDING REPORT

Anheuser-Busch
St. Louis, MO

	1983	1982	% Change
Capital Expenditures	402.9	335.5	20.1
Net Sales	6,228	4,771	30.5
Net Earnings	346.2	284.2	21.8

Estimated 1984 Spending: $388 million

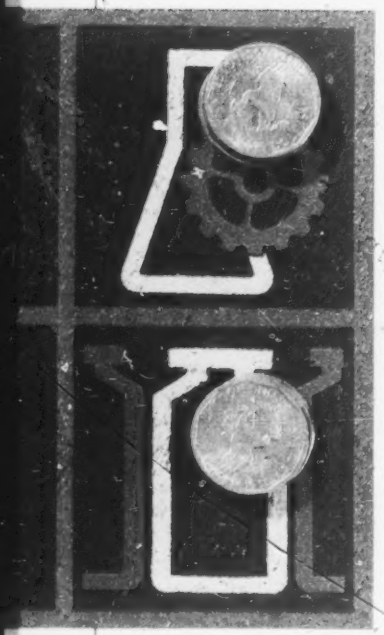
Capital expenditures included the expansion of the Baldwinsville, NY, and Houston, Tex. breweries, expansion of the Manitowoc, Wisc. malting facility and Campbell Taggart's bakery modernization.

R.J. Reynolds
Winston-Salem, NC

	1983	1982	% Change
Capital Expenditures	206.0	118.0	74.6
Net Sales	4,491	3,156	42.3
Net Earnings	200.0	51.0	292.1

Estimated 1984 Spending: N.A.

R.J. Reynolds used capital spending for modernization of food and beverage processing facilities.



Coke has invested over $20 million in aseptic production equipment for its Hi-C division.

Coca-Cola
Atlanta, GA

	1983	1982	% Change
Capital Expenditures	282.7	249.5	13.3
Net Sales	5,980	4,516	32.4
Net Earnings	511.5	446.6	14.5

Estimated 1984 Spending: N.A.

Coke's capital expenditures related primarily to capacity expansion and improved efficiency. Over $20 million has been invested in aseptic production equipment for Hi-C drinks.

CPC International
Englewood Cliffs, NJ

	1983	1982	% Change
Capital Expenditures	187.4	216.6	-13.5
Net Sales	4,011	4,092	-2.0
Net Earnings	136.2	231.6	-41.2

Estimated 1984 Spending: Up to $300 million.

Constructed a plant at Dupigheim, France for Knorr soups, sauces and bouillons. Expanded oil refining capacity at Anastacio in Brazil. Purchased a plant at Schaumburg, Ill. for production of Thomas' English muffins.

PepsiCo
Purchase, NY

	1983	1982	% Change
Capital Expenditures	273.9	278.0	-1.5
Net Sales	5,370	5,232	2.6
Net Earnings	212.1	174.9	21.3

Estimated 1984 Spending: Expected to increase.

Frito-Lay opened its first corn storage facility in the Midwest and began construction on a new snack food production plant in Casa Grande, Ariz.

Campbell Soup Co.
Camden, NJ

	1983	1982	% Change
Capital Expenditures	183.1	154.0	18.9
Net Sales	3,657	3,292	11.1
Net Earnings	191.2	165.0	15.9

Estimated 1984 Spending: N.A.

Completed an $8 million mushroom growing facility in Dublin, Ga. Began a $9 million Le Menu production line at the Sumter, S.C. frozen food plant. Completed two Pepperidge Farm cookie production lines at Willard, Oh., and two at Downingtown, Pa.

General Foods
White Plains, NY

	1983	1982	% Change
Capital Expenditures	266.7	232.9	14.5
Net Sales	8,600	7,227	19.0
Net Earnings	317.1	272.4	16.4

Estimated 1984 Spending: About the same.

General Foods completed an Oscar Mayer bacon plant at Coshocton, Ohio, purchased a plant in Sigourney, Iowa, for producing processed turkey products, and added Orowheat bakery and distribution facilities.

Philip Morris
New York, NY

	1983	1982	% Change
Capital Expenditures	174.6	286.3	-39.1
Net Sales	3,572	3,459	3.3
Net Earnings	99.9	174.9	-42.9

Estimated 1984 Spending: About the same.

Completed Trenton, Ohio brewery for Miller beer. Acquired bottling operations in Ottowa, Toronto and Boston for the Seven-Up Company.

Nabisco Brands
New York, NY

	1983	1982	% Change
Capital Expenditures	240.9	266.6	-9.4
Net Sales	5,985	5,871	1.9
Net Earnings	322.6	314.7	2.5

Estimated 1984 Spending: $300 million

Began construction on a new Corporate Technology Center in East Hanover, N.J. Began a modernization program at Huntley & Palmer in Britain. Upgrading productivity throughout confectionery manufacturing plants.

Kellogg
Battle Creek, MI

	1983	1982	% Change
Capital Expenditures	156.7	121.1	29.4
Net Sales	2,361	2,397	-0.7
Net Earnings	242.7	227.8	6.5

Estimated 1984 Spending: $200 million

Constructing an advanced-technology cereal plant in London, Ontario. Completed Seoul, South Korea cereal plant. Constructing new corporate headquarters in Battle Creek, Mich.

Figures are in millions of dollars and are for food segments only.

(Continued on page 98)

SPENDING REPORT

PepsiCo's Frito-Lay division began construction on a new snack food plant in Casa Grande, Arizona.

Adolph Coors
Golden, CO

	1983	1982	% Change
Capital Expenditures	155.7	84.1	85.1
Net Sales	1,110	766	44.9
Net Earnings	89.0	33.0	169.7
Estimated 1984 Spending: $150 million			

Expanded brewery to service continued market expansion. Constructed a composite packaging facility. Acquired a grain processing facility. Added a potato chip production line at The Food Factory.

ConAgra
Minneapolis, MN

	1983	1982	% Change
Capital Expenditures	152.8	24.1	534.0
Net Sales	1,459	1,151	26.7
Net Earnings	28.7	20.6	39.3
Estimated 1984 Spending: $165 million			

Completed an expansion at Peavey Grain's storage and handling facilities at the Tulsa port of Catoosa. Constructing an export grain elevator at Kalama, Wash. Expanded the Oakland flour mill. Completed flour mill in Phoenix.

ADM
Decatur, IL

	1983	1982	% Change
Capital Expenditures	147.7	160.5	-92.0
Net Sales	4,292	3,713	15.6
Net Earnings	110.2	155.0	-28.9
Estimated 1984 Spending: N.A.			

Completed a major co-generation project at the Clarksdale, Miss. plant. Increasing the size of the hydroponics complex in Decatur, Ill.

H.J. Heinz
Pittsburgh, PA

	1983	1982	% Change
Capital Expenditures	137.0	111.4	23.0
Net Sales	3,954	3,738	5.8
Net Earnings	237.5	214.3	10.8
Estimated 1984 Spending: N.A.			

Completed expansion at Holland, Mich. pickle factory. Expanded Star-Kist tuna processing facilities at Caribe, Puerto Rico and Samoa. Updated equipment at Ore-Ida Greenville, Mich. plant. Completed expansion of Hubinger's HFCS production facility.

General Mills
Minneapolis, MN

	1983	1982	% Change
Capital Expenditures	130.3	123.8	5.3
Net Sales	2,713	2,793	-2.9
Net Earnings	130.7	134.1	-2.5
Estimated 1984 Spending: $135 million			

Seven-story consumer foods' warehouse at Lodi, California, utilizing computers and robots.

Nestle'
White Plains, NY

	1983	1982	% Change
Capital Expenditures	127.1	93.0	36.7
Net Sales	2,508	2,341	7.1
Net Earnings	113.4	93.7	21.0
Estimated 1984 Spending: N.A.			

Increased frozen food production capacity at Trenton, Canada and the Stouffer factory at Gaffney. Equipped the New Milford factory for the production of Chambourcy desserts.

Beatrice Foods
Chicago, IL

	1983	1982	% Change
Capital Expenditures	119.0	211.0	-43.6
Net Sales	7,304	7,285	0.3
Net Earnings	292.1	320.8	-9.0
Estimated 1984 Spending: Expected to increase.			

Used capital expenditures to upgrade food and beverage production facilities.

Procter & Gamble
Cincinnati, OH

	1983	1982	% Change
Capital Expenditures	116.0	103.0	12.6
Net Sales	2,249	2,192	2.6
Net Earnings	58.5	66.5	-12.0
Estimated 1984 Spending: Expected to increase.			

Capital expenditures were directed towards cost-saving projects and projects to increase capacity.

Carnation
Los Angeles, CA

	1983	1982	% Change
Capital Expenditures	107.9	74.8	44.3
Net Sales	2,778	2,836	-2.1
Net Earnings	155.0	137.6	12.6
Estimated 1984 Spending: N.A.			

Installed a multiple vapor recompression evaporator system at the Riverbank, Calif. tomato processing plant to reduce energy consumption and increase production capacity. Built a new plant in Othello, Wash. for processing dehydrated re-fried beans.

Hershey Foods
Hershey, PA

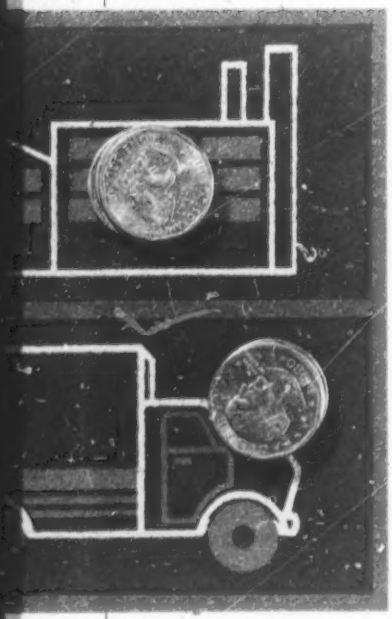
	1983	1982	% Change
Capital Expenditures	105.2	116.7	-9.9
Net Sales	1,706	1,566	8.9
Net Earnings	100.2	94.2	6.4
Estimated 1984 Spending: $100 million			

Completed a 435,000 square foot Eastern Distribution Center. Added production capacity to Friendly's Wilbraham, Mass. location. Installed San Giorgio pasta manufacturing lines.

Figures are in millions of dollars and are for food segments only.

(Continued on page 102)

SPENDING REPORT



General Foods' Oscar Mayer Division opened a single-product plant to produce bacon at Coshocton, Ohio.

Dart & Kraft
Glenview, IL

	1983	1982	% Change
Capital Expenditures	95.3	119.9	-20.1
Net Sales	6,660	7,041	-5.4
Net Earnings	252.8	198.7	27.2

Estimated 1984 Spending: Expected to increase

Capital expenditures went for improved efficiency and replacement of existing facilities.

Ralston Purina
St. Louis, MO

	1983	1982	% Change
Capital Expenditures	66.8	177.5	-72.4
Net Sales	3,966	3,962	0.1
Net Earnings	211.1	180.8	16.8

Estimated 1984 Spending: $85 million

Capital expenditures went for new and improved facilities. Constructing new feed plants.

Borden
New York, NY

	1983	1982	% Change
Capital Expenditures	94.6	61.1	54.8
Net Sales	2,969	2,891	2.7
Net Earnings	118.6	117.2	1.2

Estimated 1984 Spending: $N.A.

Installed Lite-line snack manufacturing facilities in five plants. Completed construction of a 'Creamette pasta plant at Tolleson, Ariz. Modernizing Houston, Tex. milk plant.

Swift
Chicago, IL

	1983	1982	% Change
Capital Expenditures	59.0	17.3	241.0
Net Sales	2,540	2,540	0.0
Net Earnings	22.0	22.0	0.0

Estimated 1984 Spending: N.A.

Expanded operations at the Des Moines, Iowa boxed beef plant, acquired a lamb plant in San Angelo, Tex. Acquired three pork plants from Armour Food Co.

Consolidated Foods
Chicago, IL

	1983	1982	% Change
Capital Expenditures	76.2	128.4	-40.7
Net Sales	3,336	3,186	4.7
Net Earnings	78.6	90.5	-13.1

Estimated 1984 Spending: N.A.

Acquired the Jimmy Dean Meat Co. and Poultry Specialties. Upgraded equipment.

ITT
New York, NY

	1983	1982	% Change
Capital Expenditures	56.0	77.0	-24.7
Net Sales	1,472	1,458	1.0
Net Earnings	38.2	31.0	23.2

Estimated 1984 Spending: N.A.

Completed new Pomona, Calif. bakery. Also made expenditures to reduce fuel consumption, and increase production and operating efficiencies.

Pillsbury
Minneapolis, MN

	1983	1982	% Change
Capital Expenditures	73.2	65.8	11.2
Net Sales	2,489	2,204	12.9
Net Earnings	83.5	79.6	4.9

Estimated 1984 Spending: $88 million

Constructing a new production facility for Haagen-Dazs ice cream in Tulare, Calif. and a vegetable processing plant in Mexico. Completed the Los Angeles flour mill expansion.

The Federal Co.
Memphis, TN

	1983	1982	% Change
Capital Expenditures	51.4	43.4	18.5
Net Sales	1,304	1,123	16.1
Net Earnings	41.4	25.7	60.9

Estimated 1984 Spending: $43 million

Completed a pie filling manufacturing plant for Globe Products, a new Holly Farms feed mill in Nacogdoches, Texas and increased capacity at White Lily Foods for packaged flour.

Seagram
Montreal, Canada

	1983	1982	% Change
Capital Expenditures	68.3	90.2	-24.3
Net Sales	2,648	2,826	-6.3
Net Earnings	119.4	111.3	7.3

Estimated 1984 Spending: N.A.

Seagram is using capital expenditures to modernize production facilities.

A.E. Staley
Decatur, IL

	1983	1982	% Change
Capital Expenditures	50.4	321.9	-84.4
Net Sales	1,679	1,588	5.7
Net Earnings	13.7	62.6	-78.1

Estimated 1984 Spending: $70 million

Constructing a new soybean plant in India. Capital expenditures also went for sweetener bulk handling stations at Cocoa, Fla., Butner, N.C., and Westborough, Mass.

Figures are in millions of dollars and are for food segments only.

(Continued on page 105)

SPENDING REPORT

Agway
Syracuse, NY

	1983	1982	% Change
Capital Expenditures	37.9	40.2	-6.7
Net Sales	1,676	1,958	-14.4
Net Earnings	9.7	11.0	-11.8
Estimated 1984 Spending: $35 million			

Capital expenditures went for nominal and recurring items, committments for plant construction, and expansion and replacement of worn-out facilities.

Esmark
Chicago, IL

	1983	1982	% Change
Capital Expenditures	30.9	16.9	82.8
Net Sales	1,685	1,446	16.5
Net Earnings	35.7	21.7	65.5
Estimated 1984 Spending: N.A.			

Capital expenditures were used to increase production efficiency and capacity.

McCormick
Hunt Valley, MD

	1983	1982	% Change
Capital Expenditures	37.2	22.4	66.1
Net Sales	743	718	3.5
Net Earnings	40.1	25.0	60.4
Estimated 1984 Spending: N.A.			

Completed a new technical center at Hunt Valley, Md. Constructing a major production facility at Hunt Valley.

United Brands
New York, NY

	1983	1982	% Change
Capital Expenditures	30.1	42.8	-29.7
Net Sales	2,406	3,973	-39.4
Net Earnings	-167.0	2.7	N.A.
Estimated 1984 Spending: N.A.			

Upgraded palm oil extraction equipment in United Fruit plants. Improved productivity in remaining Morrell meat plants.

IC Industries
Chicago, IL

	1983	1982	% Change
Capital Expenditures	36.2	36.8	-1.7
Net Sales	1,536	1,589	-3.3
Net Earnings	50.8	26.9	88.8
Estimated 1984 Spending: $43 million			

Installed processing systems in the Old El Paso plant. Pet has invested in automated waffle ovens and computer-coptrolled automated equipment for manufacturing and packaging Whitman's candies.

American Brands
New York, NY

	1983	1982	% Change
Capital Expenditures	28.9	27.1	6.6
Net Sales	798	697	14.5
Net Earnings	37.9	31.6	19.9
Estimated 1984 Spending: $34 million			

Capital expenditures were geared to the continuing modernization of manufacturing operations and packaging equipment.

G. Heileman
La Cross, WI

	1983	1982	% Change
Capital Expenditures	33.8	21.5	57.2
Net Sales	1,326	1,001	32.5
Net Earnings	57.0	45.7	24.7
Estimated 1984 Spending: $30 million			

Completed a major expansion of the brewhouse and government cellars at the St. Paul brewery, an addition to the packaging and warehousing areas at the Seattle brewery.

Anderson Clayton
Houston, TX

	1983	1982	% Change
Capital Expenditures	28.3	30.6	-7.5
Net Sales	1,525	1,603	-4.9
Net Earnings	38.5	55.2	-30.3
Estimated 1984 Spending: N.A.			

Anderson Clayton concentrated capital expenditures on increasing productivity and lowering operating costs.

General Cinema
Chestnut Hill, MA

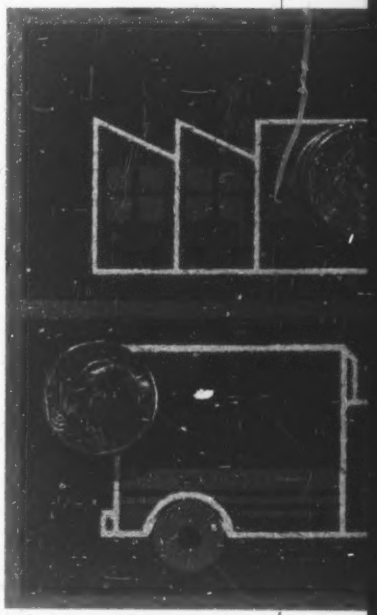
	1983	1982	% Change
Capital Expenditures	33.2	31.6	5.1
Net Sales	524	496	5.6
Net Earnings	60.1	28.6	110.1
Estimated 1984 Spending: $30 million			

Upgraded and modernized Pepsi bottling facilities.

Castle & Cooke
Honolulu, HA

	1983	1982	% Change
Capital Expenditures	27.5	21.0	31.0
Net Sales	1,552	1,687	-8.1
Net Earnings	-49.7	8.7	N.A.
Estimated 1984 Spending: $21 million			

Capital expenditures were used to maintain modern equipment and increase productivity.



Nabisco Brands began construction of a new Corporate Technology Center in East Hanover, New Jersey.

Figures are in millions of dollars and are for food segments only.

(Continued on next page)

SPENDING REPORT

CPC International is planning to invest $300 million annually over the next three to five years.

41 Gerber — Fremont, MI

	1983	1982	% Change
Capital Expenditures	27.5	15.9	73.0
Net Sales	677	623	8.7
Net Earnings	46.6	39.0	19.5

Estimated 1984 Spending: $28 million

42 Mrs. Corp. — Minneapolis, MN

	1983	1982	% Change
Capital Expenditures	25.8	33.1	-22.1
Net Sales	616	503	22.5
Net Earnings	38.3	32.0	19.7

Estimated 1984 Spending: N.A.

43 Formost-McKesson — San Francisco, CA

	1983	1982	% Change
Capital Expenditures	24.3	32.2	-24.5
Net Sales	1,193	1,193	0.0
Net Earnings	31.2	33.3	-6.4

Estimated 1984 Spending: N.A.

44 American Home — New York, NY

	1983	1982	% Change
Capital Expenditures	24.0	19.4	23.7
Net Sales	854	817	4.5
Net Earnings	65.4	62.0	5.5

Estimated 1984 Spending: N.A.

45 Universal Foods — Milwaukee, WI

	1983	1982	% Change
Capital Expenditures	23.9	19.6	21.9
Net Sales	523	496	5.4
Net Earnings	20.6	18.4	12.0

Estimated 1984 Spending: N.A.

46 Central Soya — Fort Wayne, IN

	1983	1982	% Change
Capital Expenditures	23.4	27.1	-13.7
Net Sales	1,513	1,753	-13.7
Net Earnings	24.3	19.5	24.6

Estimated 1984 Spending: N.A.

47 Lipton — Englewood Cliffs, NJ

	1983	1982	% Change
Capital Expenditures	22.2	17.6	26.1
Net Sales	1,006	913	10.2
Net Earnings	64.5	56.6	14.0

Estimated 1984 Spending: N.A.

48 Int'l Multifoods — Minneapolis, MN

	1983	1982	% Change
Capital Expenditures	20.1	23.1	-13.0
Net Sales	1,033	1,078	-4.2
Net Earnings	29.9	33.9	-11.8

Estimated 1984 Spending: N.A.

49 Tyson Foods — Oklahoma City, OK

	1983	1982	% Change
Capital Expenditures	19.9	25.3	-21.3
Net Sales	604	559	8.1
Net Earnings	11.1	9.4	18.1

Estimated 1984 Spending: N.A.

50 Montfort — Greeley, CO

	1983	1982	% Change
Capital Expenditures	17.9	6.0	198.3
Net Sales	1,326	997	33.0
Net Earnings	16.1	18.9	-14.8

Estimated 1984 Spending: $10 million

KING SUGAR: STILL NO.1, BUT LOSING GROUND

Corn sweeteners score dramatic gains, sugar loses ground, low-cal sweeteners will take a bigger share of market from both. Needed, says USSPG: Renewal of sugar price supports in the face of subsidized imports, removal of foreign barriers to U.S. exports.

World sugar prices are among the most volatile of all commodities. Repeated attempts to control violent price swings through effective international agreements have failed.

Sugar will continue to be the most important sweetener during the coming decade, but it will continue to lose ground."

That's one conclusion of an economic study entitled "The U.S. Sweetener Industry In The Decade Ahead," prepared for the domestic sweetener industry by Economic Perspectives, Inc. and presented Aug. 2 by Dr. William C. Motes of EPI at the International Sweetener Symposium at Itasca, Ill.

The symposium marked the first gathering of the U.S. Sweetener Producers Group, a coalition of sugar and corn-sweetener producers. Membership includes cane and sugarbeet growers and processors, corn growers and processors, trade unions and suppliers to the sweetener industry. Basic goal: Influencing government policies aimed at supporting the U.S. sweetener industry in the face of subsidized imports at home and export barriers abroad.

HFSC: Soaring market share

More than 12 million tons of nutritive sweeteners are currently consumed in the U.S. per year. About 80 percent of this is in processed food products.

Corn sweeteners and low-calorie sugar substitutes are replacing growing amounts of sugar (sucrose) in processed foods—especially soft drinks—but sugar will remain the most important sweetener in the American diet in the decade ahead, says the EPI report.

While U.S. per-capita consumption of sweeteners grew from 124.2 lbs. in 1975 to 132.9 lbs. in 1983 and will further rise to 148 lbs. by 1992, sugar's share of market plunged from 72 percent in 1975 to 53 percent in 1983 and will further dip to 42 percent by 1992. High-fructose corn syrup (HFCS) accounts for most of the change, soaring from only 4 percent share of the sweetener market in 1975 to 23 percent in 1983, with projected rise to 31 percent by 1992.

Chaotic world market

Because the U.S. is the world's fifth largest producer and second-largest importer of sugar, Motes pointed out, the commodity is critical to both producers and consumers in this country.

World sugar prices are among the most volatile of all commodities. Repeated attempts to control violent price swings through effective international agreements have failed. The fourth International Sugar Agreement (ISA), negotiated in 1977, failed to hold sugar prices within targeted range mainly because the European Economic Community (EEC) didn't join. This agreement expires at the end of this year, but recent negotiations for a new ISA failed. Major reason: Exporters are unwilling to restrict exports sufficiently to insure stable prices.

In addition, The General Agreement on Tariffs and Trade (GATT), designed to prevent unfair export subsidies and dumping by suppliers such as the EEC, has not been effective.

Most nations intervene in the sugar market to insulate producers and consumers from the instability of world prices, the EPI report points out, For example:

out, For example:

—All major exporters guarantee minimum prices to their producers;

—Most control both exports and amounts available for domestic consumption;

—Some exporters prohibit sweetener imports;

Both exporters and importers restrict imports through tariffs.

U.S. policy for many years has been to protect producers from abnormally low world prices and consumers from abnormally high world prices. This is accomplished through raw-sugar price supports (in the form of CCC loans, at no cost to the taxpayer) and through imports restrictions (in the form of duties and quotas) to support domestic sugar prices above extreme lows in world prices.

But the basic pattern for most other world producers has been to subsidize production, create surpluses, then subsidize export of their surpluses.

The EEC—now the world's largest exporter—guarantees producer prices, applies prohibitive levies to imports (except for limited amounts from former colonies), and subsidizes exports to a price below the cost of production. In June, the EEC subsidized sugar exports to the tune of 14.2 cents per lb.—*nearly three times the world market price that month!*

Both the EEC and Japan restrict HFCS production. Centrally-planned economies such as Cuba have even tighter controls.

Except for the most efficient cane-sugar producers, the U.S. produces sugar at lower cost than most of the world's sugar exporters. But—with world prices driven to artificially-low levels by nations who subsidize exports—the U.S. can't compete in world markets. Example: While U.S. sugar-production costs range between 20 and 25 cents per lb., the world market price for October delivery (as this story went to press) was 4.14 cents per lb. As a result, all sugar produced in this country is for domestic consumption only.

Protectionism abroad has only further spurred production. While world sweetener consumption grew by 19 percent over the past 10 years, world production soared by 31 percent. Among the major sugar producers, only in the U.S. did sugar acreage decline over the past decade. "Such expansion in the face of declining price tends to further destabilize world markets," says the EPI report. In 1983 and '84, nearly all free-market exports were sold below production costs. "If U.S. prices are not effectively stabilized during low world-price periods, domestic sugar production can be expected to decline sharply," the report adds.

Outlook for world sugar markets, according to the EPI report: Slow adjustment from current surpluses, with production and consumption near balance by 1987, but a return to surplus production and downward pressure on prices once again by 1992.

The U.S. is the world's fifth largest producer and second largest importer of sugar. The commodity is critical to both producers and consumers in this country.

Since an effective ISA is unlikely over the next few years, the policies of individual nations will "continue to intensify the disruptive price cycles that have long characterized the world sugar market."

The outlook for sweeteners in the U.S. is dominated by two trends, says the EPI report: A sharp upward surge in beverage consumption, and a decline in home-sweetener use. But the overall sweetener trend is up, with per-capita consumption projected at 148 lbs. in 1992 from 132.9 lbs in 1983.

As this total rises, competition for share of market will intensify between nutritive and low-calorie sweeteners, and between sugar and starch-based sweeteners. While the domestic sweetener market will increase from 15.7 mst (million short tons, refined basis) to 18.5 mst by 1992, the market for sugar will slowly decline.

Although sugar production is declining, overall sweetener production is on the increase because of the growth of HFCS. Reasons: Lower production costs for HFCS; price-stabilization policies which—if continued—will lead to further erosion of sugar production.

Outlook for domestic sweeteners: Turbulent world markets; intense competition; a larger, more competitive and more efficient U.S. sweetener industry.

Little effect on retail prices

USDA manages the U.S. sugar program in such a way that domestic prices give processors strong incentives to redeem any CCC loans for commercial sale.

Critics sometimes charge that this holds domestic prices unnecessarily high. If the price

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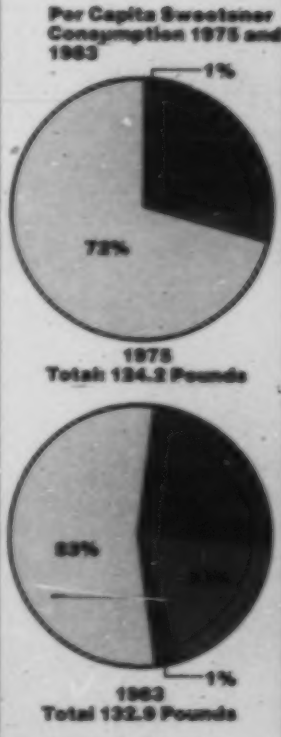
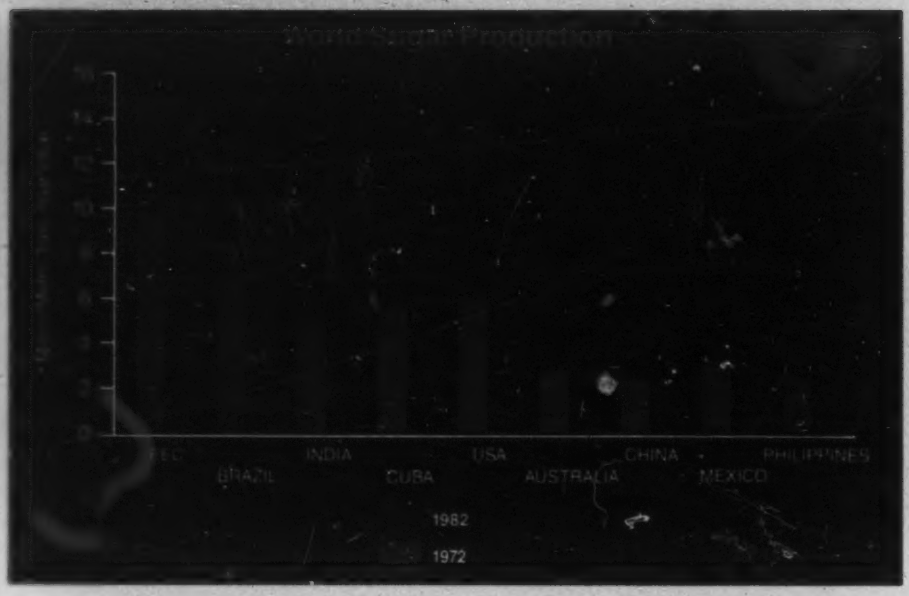


While world sweetener consumption grew by 19 percent over the past 10 years, world sugar production has soared by 31 percent. Such expansion in the face of declining price further destabilizes world markets.



support were lowered, each 1¢ difference would reduce consumer costs by more than $300 million. This implies that retail food prices would decline proportionally.

But according to the EPI study—although prices of raw sugar, wholesale refined sugar and HFCS tend to move closely together—changes in these prices do *not* explain changes in sweetener costs to customers.

More than 75% of U.S. sweetener consumption is in beverages and processed foods rather than in granulated retail products, the report says. "For these foods, changes in wholesale sugar prices have almost no discernible short-term impact on retail food prices." Example: Food prices rose and sugar prices rose in 1979-80, but when sugar prices dropped by 50% in 1981, there was no significant impact on retail food prices. Subsequent rise and falls in sugar prices produced no impact, either.

"Price changes depend on a range of costs and changes in recipes and product formulation," the report continues. "Small decreases in the sugar price-support loan or in raw sugar prices result in relatively small savings in consumer costs in the short run."

The EPI report makes no recommendations concerning price supports but does identify one key factor affecting producer incentives: The current market-stabilization price (21.17¢ per lb.) is lower than the average cost of production (21.53¢ per lb. for raw cane sugar, 25.52¢ per lb. for refined beet sugar). "Continuation of such a policy should lead to continued declines in domestic production," the report concludes.

Speakers from agriculture, industry, labor and government at the International Sweetener Symposium mainly called for continuation of the current sugar program. Michael D. Warner, legislative committee chairman for the American Sugar Beet Growers Assn., expressed one reservation: The current loan level has "fallen short" of maintaining the beet industry, where two plants were shut-down in 1982."

No-cal/low-cal sweeteners

No-calorie and low-calorie sweeteners—aspartame, saccharin and cyclamate and others—will start grabbing a bigger share of an expanding market even before projected maturity of the HFCS market in 1986, said Robert D. Barry of USDA's Agricultural Research Service. Major reason: Continued fast expansion of diet food products, especially diet soft drinks.

In 1985, the gain by HFCS is estimated as less than the loss in sugar consumption, with overall caloric-sweetener consumption declining by 0.2 percent and no-cal/low-cal sweeteners filling th gap.

Aspartame has shown "astonishing growth" since the 1981 (tabletop) and 1983 (soft-drink) approvals by FDA, he continued. U.S. aspartame consumption for 1983 is estimated at 2.5 lbs. per capita (sugar-sweetness equivalent) and—despite a relatively high price—seems constrained mainly by production capacity. Consumption of diet soft drinks soared nearly 25 percent in 1983, reaching an estimated 18 percent of total soft-drink sales, he added.

Although total sweetener use (caloric and non-caloric) is forecast to rise from 136.5 lbs. per capita in 1983 to 147 lbs. per capita in 1990, "the dimensions of inter-sweetener competition will depend on regulatory decisions, relative cost, market prices, and technical factors governing (food applications)," he pointed out.